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<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/990,403	HIEB, MARIO	
	<b>Examiner</b>	<b>Art Unit</b>	
	KHAI TRAN	2637	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**  
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the preliminary amendment filed 1/02/2004.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ The drawings filed on 11/21/01 and 4/09/2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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|--|--|
| <ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
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### ***REASONS FOR ALLOWANCE***

1. The preliminary amendment filed 1/02/2004 has been entered. Claims 1-18 are pending in this Office action.

#### ***Allowable Subject Matter***

2. Claims 1- 18 are allowed.

3. The following is an examiner's statement of reasons for allowance: none of the prior art of the record discloses or suggests a radio frequency system incorporating an envelope delay within a broadcast signal to achieve a directional pattern, comprising: a delay stage in electrical communication with the oscillator to receive the carrier wave, the delay stage configured to delay the carrier wave and by a delay amount; and a modulator in electrical communication with the delay stage to receive the carrier wave, the modulator further receiving analog audio and configured to provide amplitude modulation of the carrier wave with the analog audio to thereby generate an amplitude modulated carrier wave with an envelope delay as recited in claims 1, 10; and none of the prior art also discloses a modulator in electrical communication with the delay stage and configured to provide amplitude modulation of the carrier wave with analog audio to thereby generate an amplitude modulated carrier wave with an envelope delay; an amplifier in electrical communication with the modulator and configured to amplify the power of the amplitude modulated carrier wave; and processor in electrical communication with the delay stage, the oscillator, and the amplifier and configured to enable adjustment of the carrier wave, the delay amount, and power amplification as recited in claim 18.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Usin (U.S. Pat. 5,896,180) discloses a phase locked loop circuit.

Henson et al (U.S. Pat. 5,471,176) disclose a glitchless frequency adjustable ring oscillator.

Horrible et al (U.S. Pat. 5,666,341) disclose a data detection apparatus.

Carley (U.S. Pat. 5,793,709) discloses a free lop interval timer and modulator.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI TRAN whose telephone number is (703) 305-1876. The examiner can normally be reached on 7:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAY PATEL can be reached on (703) 308-7728. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KHAI TRAN  
Primary Examiner  
Art Unit 2637

**KT**  
**August 20, 2004**